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The Transliteration of Egyptian.[1]—By JAMES TEACKLE DENNIS, Baltimore, Md.

THE transliteration of the ancient Egyptian texts has occupied the attention of Egyptologists for many years, but especially within the last decade. The first attempt to express the sounds of the old Egyptian language by means of well known symbols was made by Champollion in 1822, while studying the Rosetta stone, when he discovered the relationship between Coptic and ancient Egyptian. Early in the Christian era, the Copts discarded the complicated and clumsy demotic writing, and adopted the Greek alphabet for transcribing their language, incorporating six signs for Egyptian sounds that had no equivalent in Greek characters. Using the Greek alphabet therefor, as a basis, in 1822 Champollion formulated a list of 117 Egyptian signs, with what he supposed to be their Greek equivalents. In 1837, Lepsius pointed out numerous errors in this list, and endeavored to rearrange the Egyptian alphabet on the lines of the Coptic, but did not attempt to express the sounds by means of any European characters. By this time, also, many sounds had been proved to be syllabic which Champollion had considered merely variants of alphabetic characters; others were shown to be ideograms and determinatives, and not in any sense either alphabetic or syllabic. Champollion died in 1832, and three years later his *Grammaire Égyptienne* was published. His followers, welcoming the discovery of the relationship between Egyptian and Coptic, transcribed all their Egyptian texts into Coptic formulæ; and of this method of transliteration Chabas was the most ardent supporter, for he employed it until his death, in 1882. To satisfy those who disbelieved in the identity of the two languages, however, Chabas used a double system; transliterating into Coptic for the use of specialists, and into Roman type for the benefit of others. His Roman alphabet, however, differed greatly from that devised by Lepsius. His Coptic transliterations have always been considered excellent.

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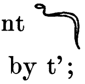
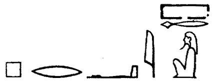
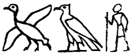
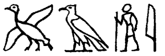
[1] The Egyptian type for this article was kindly furnished by Dr. Charles E. Moldenke, of Watchung, N. J.

The diversity of opinion as to the best method of reducing Egyptian characters to modern symbols, led ultimately to each Egyptologist employing a system of his own, nor did they always use their systems consistently; for example, Deveria used three different methods in three transliterations made respectively in 1857, 1858 and 1865, the last being the Turin Legal papyrus. Bunsen, in *Ägyptens Stelle in der Weltgeschichte* (1848), reduced the Egyptian alphabet to 17 simple sounds, representing one of these by a Coptic and another by a Greek character. This table was adopted by Lepsius as the basis of his system, from which all later ones have been derived. The first great step towards uniformity of transliteration was taken in 1854, at a conference held in London, where Lepsius proposed a resolution that "a standard alphabet be adopted for the reduction into European characters of foreign graphic systems and unwritten languages;" but the conference adjourned without taking any action, chiefly because of the difficulty in accurately representing many Egyptian sounds by the use of any European alphabet. But the Berlin academy, in 1862, adopted the system proposed by Lepsius at the London conference,—a system which reduced the number of simple characters to 15; ultimately this number was increased to 28; and this latter list was formally adopted by the Second International Congress of Orientalists held in London, in 1874. All the symbols used by Lepsius in this transliteration are ordinary European letters, with the one exception of the Greek χ. One objection offered to this system, however, is its free use of diacritical points, which suggest different sounds to different nationalities; and to obviate this difficulty, there is a tendency in some quarters to express such sounds as require the use of diacritical marks by combinations of letters. For example, the 22d letter of Erman's list, the serpent , is transliterated by him ḏ; by Chabas it is represented by t'; Bunsen gives t; British Museum Catalogue tch; Loret dj; Petrie z; while the Egyptian Exploration Society writes ḏ in Beni Hasan I and z in Beni Hasan II. Yet combinations such as the above do not meet the requirements of the case, for many letters are pronounced differently by different nations; e. g., w, ch and th, the sounds of which are quite different in English from those given them by the

Germans. Even in English, c becomes k or s under different circumstances.

Maspero was the first Egyptologist now living to discard diacritical points, retaining distinguishing marks only for the eagle 𓄿 and the arm 𓂝—symbols of which we shall speak later.

Loret's *Manuel de la Langue Égyptienne* introduced several series of double letters—ou, kh, sh, etc. Petrie has followed closely in Loret's footsteps, and both insert an e where a vowel sound seems necessary, but is undetermined. Maspero adheres to the Coptic vocalization where it is known. Six signs are considered by all the above-named Egyptologists as vocalic —the eagle 𓄿, reed leaf 𓇋, arm 𓂝, double reed leaf 𓇌, double stroke 𓏭, and little chicken 𓅱. Lepsius found that where the first three of these signs occurred in Egyptian, the Coptic frequently showed an a; he therefore conjectured these to be three different signs for the first letter of European alphabets, and further stated that he believed the arm 𓂝 to represent long ā, often passing to ō. But the Hebrew ע (ain) is often found corresponding in position to the sound symbolized by 𓂝 in words borrowed by the Hebrews from the Egyptians, such as the word Pharaoh, Hebrew פרעה, in Egyptian  where 𓂝 is represented by ע. In 1892, two eminent German Egyptologists, Dr. Erman of Berlin, and Dr. Steindorff of Leipzig, first propounded the theory of a purely consonantal system for the written Egyptian language, as is the case with Hebrew and other Semitic tongues. The next year Dr. Erman's *Ägyptische Grammatik* was published, and translated into English in 1894 by Dr. Breasted, of the University of Chicago. The alphabetic list of signs given in this grammar is nearly identical with that used by the Egyptian Exploration Society in Beni Hasan I; and to every sign a consonantal value is given, on the ground of correspondence in many ways between Egyptian and Semitic. The followers of this method have been termed the "Berlin school;" the chief difference between their transliterations and those of other "schools" is in the substitution by the former of consonantal instead of vocalic characters for the six signs above referred to. By the Berlin school, 𓄿 is identified with the Hebrew א; 𓂝 with ע; 𓅱 with ו; the reed leaf 𓇋 is transliterated by Erman as 'i; 𓇌 by the Hebrew י, while for the double stroke 𓏭 he uses the symbol ï. These last three may generally be transliterated by the English y. Just what difference existed between them is difficult to determine. Yet this method still requires some system of vocalization, and Prof. Spiegelberg of Strassburg, while fully indorsing the Berlin method, continues to use an interpolated e in transliterating texts. A most valuable contribution to this theory is the work of Dr. Sethe, of Göttingen, on *Das Ägyptische Verbum*,—a thoroughly exhaustive study which greatly strengthens the theory of a relationship between Egyptian and Semitic. Take, for example, the symbol of the chessboard, 𓏠 phonetically mn. This sign becomes in Coptic ⲙⲟⲩⲛ (infinitive) and ⲙⲏⲛ (pseudo-part.), and is also used in ⲙⲓⲛⲉ (infinitive) and ⲥⲙⲟⲛⲧ (pseudo-part.); also in ⲁⲙⲟⲩⲛ (name of a God), and in many other words where the letters m and n occur, either in juxtaposition or separated by different vowels. Here both the sounds represented by this sign 𓏠 are admittedly consonants, yet both the m and n are pronounced not only with preceding and following vowels, but also with intermediary vocalic sounds. In this latter case the vowel certainly is not written. That the symbols 𓄿, 𓂝, 𓇋, and 𓅱 are also consonantal signs can be shown with equal certainty. Take the word 𓇋𓊪𓏛 ('ip), which in Coptic becomes ⲱⲡ, ⲟⲡ and ⲏⲡ—all different vocalizations which could not have occurred had the first sign 𓇋 been a pure vocalic a. Also we may cite the word 𓅱𓈖𓃹 (wn) which becomes in Coptic ⲟⲩⲱⲛ, ⲟⲩⲟⲛ and ⲟⲩⲏⲛ; where the same vocalic changes occur, and where the first character 𓅱 can only represent a w, written in Coptic ⲟⲩ. A further example is the occurrence of one or the other of these characters as either occasional finals or medials in words which are frequently found with these signs omitted; for example, the name  (pꜣsr) which is sometimes written with the reed leaf added  (pꜣsr'i), where the use of 𓇋 is not altogether clear. Both these forms occur in the Abbott papyrus, relating to tomb robberies, XXth dynasty. We are familiar with this in Arabic, as for example, nom. رجل, acc. رجلا, and in the 3d masc. plurals of perfects of verbs, whose final ا is added without any vocalic value whatever, e. g. قتلوا.

Sethe remarks on this subject "These facts being established, a scientific transliteration of Egyptian writing must resemble that of the so-called 'Berlin school,' which transcribes only the sounds really written, i. e. the consonants." These views are endorsed by most of the modern school of Egyptologists. Dr. Breasted of Chicago objects to the old vocalic transliteration for 𓄿, 𓇋, 𓂝, and 𓅱, for several reasons—first, that it is a remarkable vowel system that furnishes three symbols for a and one for u, and no other vowels; secondly, all who know anything of Coptic know that the Copts possessed w and y, and unless two of these signs can represent these sounds, where in the older language are they found, and how were they written? Loan-words between Egyptian and Palestinian show that the former possessed א and ע; and what hieroglyphic characters could represent these two sounds except two of the above-named signs? Hieroglyphic 𓇋𓏏 becomes Coptic ⲈⲒⲞⲦ (pronounced yot), which shows that 𓇋 had the sound y, 𓏏 represented t, and the o was unwritten. Among prominent supporters of this Berlin system we note Dr. Reisner of the University of California, Dr. Johnston of Johns Hopkins, Dr. Schmidt of Cornell, and others.

The opponents of this system, however, are men of note, chiefly of the older school, first of whom we may place the distinguished Geneva Egyptologist, Dr. Edouard Naville. While agreeing as to the necessity of some common pasigraphy, Dr. Naville adheres to the theory of at least a partial vocalic system of writing, represented by the four characters in dispute. He objects to a vocalization based on Coptic, because, he says, "it is a foreign alphabet of a very different character." To this it may be answered, that when the Copts adopted the Greek alphabet, they added thereto signs for sounds in their language not represented by the Greek script; so that it ceased to be a "foreign alphabet," and became virtually Egyptian. He further claims that because the hieroglyphic word 𓄿𓏏𓊪𓀋 (ꜣtp) became in Coptic **ⲱⲧⲡ**, therefore the character 𓄿 represented **ⲱ**. Yet this same character 𓄿 occurs twice in the proper name 𓄿𓊪𓏲𓃭𓄿𓈖𓇌𓂧𓊃 (Greek **'Απολλωνίδης**) where in one case it would have to represent **ⲁ** and in the other **ⲱ**. Again, the Greek name **'Αριστοτέλης** appears in Ethiopic as "arestātālîs," the long ā being here used for both **ο** and **ϵ**. In Coptic, **ⲓⲱ** is written for the hieroglyphic 𓇋𓂝𓈗 ('iꜥ) where 𓂝 would represent the same sound as 𓄿 in the word cited by Dr. Naville; and 𓇋𓅱 ('iw) becomes in Coptic **ⲁⲩⲱ**, where 𓅱 seems to be given the value **ⲱ**; therefore, according to Dr. Naville's reasoning, we should have three symbols for **ⲱ**, one of which also may be used for a,—which is hardly credible. It seems certain, therefore, that 𓄿 and 𓂝 are consonants, akin to ע and א respectively, the orthography remaining the same in all cases, and the different vowel sounds being left to the reader. The further contention, that in English one vowel does duty for several distinct sounds,—such as a in father, all, have, make—does not meet the case; for in these words there is a modification due to consonantal influence, while the vowel quantity remains; but in a language written without vowels, such as we believe to be the case with Egyptian, the vocalic changes count for nothing. In support of the old vocalic theory, we also find Dr. Leiblein of Christiania, Dr. Piehl of Upsala, and M. Virey; the last named, while admitting the probability of a relationship between Egyptian and Semitic, considers the former more nearly Indo-Germanic in type. He prefers the system of transliteration devised by Lepsius, yet endorses the Coptic transliterations of Chabas for their many excellent qualities; Dr. Piehl, on the contrary, contends for the system of the late Le Page Renouf. M. Bénédite, of Paris, takes a neutral ground: he says, "The Egyptians had a language, the vocalic phenomena of which seem to me more marked than in true Semitic languages; and their writing offers doubt as to vocalization and embarrasses all effort made to determine it."

It is not likely that any text will ever be found with the vocalization clearly and indubitably indicated. Perhaps the determinative placed after most words was a sufficient indication of the vocalization to the eye, so that words spelled with the same letters were pronounced differently, according to the following determinative. The only means whereby we can gain any idea of the vocalization of Egyptian is through the medium of Coptic; and the deduction from a study of both Coptic and the older tongue is, that the latter employed a consonantal system of writing, pure and simple; and it seems rational to adopt the method of the Berlin school in our transliterations, as being the most accurate of the fourteen recognized methods; thus obtaining the most exact results possible in representing by European type the sounds of the written Egyptian. It will be time enough to modify or alter this view when it is proved a fallacy—but that time is not yet.